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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,137	07/18/2003	Jeffrey A. Wilmer	K0476-700710	5203

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EXAMINER
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SOOHOO, TONY GLEN

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/623,137

**Applicant(s)**

WILMER ET AL.

**Examiner**

Tony G. Soohoo

**Art Unit**

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 16-19 and 23-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-12, 16-19 and 23-30 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7-10 and 23-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Taguchi et al 5476320.

Taguchi discloses a blend chamber 11, 3, 6, 7, 8 with a 1<sup>st</sup> inlet 5, and 2<sup>nd</sup> inlet 6 and a recirculation line at 8 with a means to analyze the amount of the TMAH (2<sup>nd</sup> component) and to adjust the rate via the valve as controlled by the controller 10. Note that the device has a means including a pump as schematically shown in drawing 1, 8, to provide a selective output to 9 for use with a tool or any other device. Note that the controller provides adjustments to the condition of the mixture when the concentration is not of the desired point.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 11-12, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi et al 5476320 in view of Wilmer et al 2002/0048213.

The reference Taguchi et al 5476320 teaches a controller feed system and mixing tank 1 having feed source lines with a respective valves 5, 4 which is controlled by a controller 10. The controller 10 is further reactive to a sensor 8 located in a recirculation line (see right hand side of the figures having an inlet line from the bottom of the tank to and an outlet line feeding back into the top mixing tank 1 via a pump) and an outlet line located between the left hand side pump and the outlet to the tank 9.

The Taguchi et al reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of having a mixture drain port and a controller which may respond to dispense part of the mixture should the sensor control signal detects that the material in the mixture is greater than the desired concentration.

The reference to Wilmer et al 2002/0048213 teaches on paragraph [0080] that in a mixing device or holding vessel, a drain or a disposal system may be utilized to dispose any unacceptable or unneeded blend of material during the blend process. With regards to sensing and using a conductivity sensor, the Wilmer reference teaches column 14, line 55-56 (in the U.S. patent) that the sensor is a sensor to sense the blended process material is acceptable. Whereby a conductivity of a mixture is an known manner to evaluate a mixture, it is deemed that it would have been obvious to one of ordinary skill in the art to without undue experimentation to utilize a conductivity

Art Unit: 1723

sensor in order to more accurately measure the material mixture conductivity of a respective intended use in pH sensitive mixtures.

Accordingly in view of the teaching by the Wilmer reference, it is deemed that it would have been obvious to one of ordinary skill in the art to provide for the device and method of Taguchi et al with a drain and substitute the density sensor with a conductivity sensor so that the material mixture concentration measured in a more precise manner, and upon any unacceptable concentration, one may easily dispense the unwanted and unacceptable mixture.

With regards to claims 18-19, it is noted that the signal provided by the controller may be divided in any sequential number of discrete time periods, any number of readings of state of concentration, any number of corresponding signals. Also note that in the operation of the device and method as proposed, the flow of material would be interrupted once the proper concentration as the concentration fluctuates near the desired concentration of the specification of the mixture.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-12, 16-19, and 23-30 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. The prior art made of record PREVIOUSLY MADE OF RECORD and not relied upon is considered pertinent to applicant's disclosure. Suzuki et al 5800056 is pointed out as another example of the state of art made of record whereby it is known to use a drain port V13 from a mixing chamber in addition to an outlet V12. Also, the previously

Art Unit: 1723

cited Conoby et al 5516423 reference also teaches a recirculation line 70, 73 with recirculation pump 72 for recirculation of fluid back into the tank chamber 12, column 7, lines 62-68 through column 8 line 1, and a pH sensor 22 in the tank which may indicate conductivity to sense the mixture to send a signal output 23 a controller 30 to activate the feed of at least comprising the 2<sup>nd</sup> material to achieve a desired pH which is an indicator of the amount of concentration of the second material in the mixture, col. 5, line 23-27, and column 5 line 51-67.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G. Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 7-5PM, Tue-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
TONY G. SOOHOO  
PRIMARY EXAMINER

Tony G Soohoo

1723